

CLAIMS

I claim:

1. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources.

2. The controller and resource management system of claim 1 wherein said computer system is a wireless communicating device such as a cellphone.

3. The controller and resource management system of claim 1 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

4. The controller and resource management system of claim 1 wherein said computer system is a personal computer.

5. The controller and resource management system of claim 1 wherein said computer system is a communications server.

6. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware.

7. The controller and resource management system of claim 6 wherein said computer system is a wireless communicating device such as a cellphone.

8. The controller and resource management system of claim 6 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

9. The controller and resource management system of claim 6 wherein said computer system is a personal computer.

10. The controller and resource management system of claim 6 wherein said computer system is a communications server.

11. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware electrically isolated from said plurality of computer system resources.

12. The controller and resource management system of claim 11 wherein said computer system is a wireless communicating device such as a cellphone.

13. The controller and resource management system of claim 11 wherein said computer system is a portable computer such as a

hand-held personal digital assistant (PDA) or laptop personal computer.

14. The controller and resource management system of claim 11 wherein said computer system is a personal computer.

15. The controller and resource management system of claim 11 wherein said computer system is a communications server.

16. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

a system security function for notifying and alerting said plurality of computer system resources of said plurality of computer system events;

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising:

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality

of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and further notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events.

17. The controller and resource management system of claim 16 wherein said computer system is a wireless communicating device such as a cellphone.

18. The controller and resource management system of claim 16 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

19. The controller and resource management system of claim 16 wherein said computer system is a personal computer.

20. The controller and resource management system of claim 16 wherein said computer system is a communications server.

21. In a computer system having a plurality of computer system resources, a controller and resource management system and method

for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware, said controller and resource management system comprising at least:

a system security function for notifying and alerting said plurality of computer system resources of said plurality of computer system events;

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events

and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system

security function storing said plurality of computer system events with said type identifier label and said security level identifier label and further notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events.

22. The controller and resource management system of claim 21 wherein said computer system is a wireless communicating device such as a cellphone.

23. The controller and resource management system of claim 21 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

24. The controller and resource management system of claim 21 wherein said computer system is a personal computer.

25. The controller and resource management system of claim 21 wherein said computer system is a communications server.

26. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware electrically isolated from said plurality of computer system resources, said controller and resource management system comprising at least:

a system security function for notifying and alerting said plurality of computer system resources of said plurality of computer system events;

an event handler for assigning a type identifier label and security level label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and further notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events.

27. The controller and resource management system of claim 26 wherein said computer system is a wireless communicating device such as a cellphone.

28. The controller and resource management system of claim 26 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

29. The controller and resource management system of claim 26 wherein said computer system is a personal computer.

30. The controller and resource management system of claim 26 wherein said computer system is a communications server.

31. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of

computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources.

32. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling

operatively and functionally independent of said plurality of computer system resources;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said

plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and resource management systems of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

33. The controller and resource management system of claim 32 wherein said computer system is a wireless communicating device such as a cellphone.

34. The controller and resource management system of claim 32 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

35. The controller and resource management system of claim 32 wherein said computer system is a personal computer.

36. The controller and resource management system of claim 32 wherein said computer system is a communications server.

37. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for

identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label

assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controllers and resource managements of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

38. The controller and resource management system of claim 37 wherein said computer system is a wireless communicating device such as a cellphone.

39. The controller and resource management system of claim 37 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

40. The controller and resource management system of claim 37 wherein said computer system is a personal computer.

41. The controller and resource management system of claim 37 wherein said computer system is a communications server.

42. In a computer system having a plurality of computer system resources, a method for controlling and managing said plurality of

computer system resources and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources having at least one processor communicably coupled to said controller and resource management system;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system;

said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources.

43. The controller and resource management system of claim 42 wherein said computer system is a wireless communicating device such as a cellphone.

44. The controller and resource management system of claim 42 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

45. The controller and resource management system of claim 42 wherein said computer system is a personal computer.

46. The controller and resource management system of claim 42 wherein said computer system is a communications server.

47. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources having at least one processor communicably coupled to said controller and resource management system;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling

operatively and functionally independent of said plurality of computer system resources;

a plurality of integral layer-2 media access controllers (MACS);

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controllers and resource managements of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

48. The controller and resource management system of claim 47 wherein said computer system is a wireless communicating device such as a cellphone.

49. The controller and resource management system of claim 47 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

50. The controller and resource management system of claim 47 wherein said computer system is a personal computer.

51. The controller and resource management system of claim 47 wherein said computer system is a communications server.

52. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources having at least one processor communicably coupled to said controller and resource management system;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources;

a plurality of integral layer-2 media access controllers (MACS);

a manager and scheduler function for managing and scheduling the plurality of processes to be performed by said plurality of computer system resources;

a priority handler function for evaluating and categorizing said plurality of processes to be performed by said plurality of computer system resources;

a configuration and device driver function for configuring and controlling said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces for receiving and transmitting data between said plurality of computer system resources;

a plurality of bidirectional memory buffers for providing buffing of data for said plurality of bidirectional Input/Output (I/O) interfaces;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of

computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system

security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and resource management systems of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

53. The controller and resource management system of claim 52 wherein said computer system is a wireless communicating device such as a cellphone.

54. The controller and resource management system of claim 52 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

55. The controller and resource management system of claim 52 wherein said computer system is a personal computer.

56. The controller and resource management system of claim 52 wherein said computer system is a communications server.

57. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources having at least one processor communicably coupled to said controller and resource management system;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, and wherein said controller and resource management system is therein implemented in hardware or firmware;

said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources;

a plurality of integral layer-2 media access controllers (MACS);

a manager and scheduler function for managing and scheduling the plurality of processes to be performed by said plurality of computer system resources;

a priority handler function for evaluating and categorizing said plurality of processes to be performed by said plurality of computer system resources;

a configuration and device driver function for configuring and controlling said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces for receiving and transmitting data between said plurality of computer system resources;

a plurality of bidirectional memory buffers for providing buffering of data for said plurality of bidirectional Input/Output (I/O) interfaces;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer

system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said

security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and resource management systems of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

58. The controller and resource management system of claim 57 wherein said computer system is a wireless communicating device such as a cellphone.

59. The controller and resource management system of claim 57 wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

60. The controller and resource management system of claim 57 wherein said computer system is a personal computer.

61. The controller and resource management system of claim 57 wherein said computer system is a communications server.

62. In a computer system having a plurality of computer system resources, a controller and resource management system and method for controlling and managing said plurality of computer system resources, and handling a plurality of computer system events, said computer system comprising:

said controller and resource management system;

said plurality of computer system resources having at least one processor communicably coupled to said controller and resource management system and a plurality of computer system memories communicably and operatively coupled to said controller and resource management system;

wherein said plurality of computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of computer system events and further assigning a type identifier label and security level identifier label to said plurality of computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of computer system resources of said plurality of computer system events; said system security function operatively and functionally independent of said plurality of computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of computer system resources;

a manager and scheduler function for managing and scheduling the plurality of processes to be performed by said plurality of computer system resources;

a priority handler function for evaluating and categorizing said plurality of processes to be performed by said plurality of computer system resources;

a configuration and device driver function for configuring and controlling said plurality of computer system resources;

a plurality of computer system bidirectional Input/Output (I/O) interfaces for coupling said controller and resource management system to said plurality of computer system resources;

a plurality of integral layer-2 media access controllers (MACS);

a plurality of bidirectional memory buffers for providing buffing of data for said plurality of computer system bidirectional Input/Output (I/O) interfaces;

a memory controller hub for coupling said controller and resource management system to said plurality of computer system memories;

an Input/Output (I/O) controller hub for coupling said controller and resource management system to said plurality of computer system bidirectional Input/Output (I/O) interfaces;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of computer system events and assigning a type identifier label to said plurality of computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of computer system events and assigning a security level identifier label to said plurality of computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of computer system resources of said plurality of computer system events, wherein said plurality of computer system events are received into said receiver and buffer, said plurality of computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of computer system events, said plurality of computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of computer system events, said plurality of computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of computer system events, said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of computer system resources of said type and said security level assigned to said plurality of computer system events, and wherein said system security function storing said plurality of computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and

resource management systems of said type and said security level assigned to said plurality of computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

63. The controller and resource management system of claim ~~62~~ [62] wherein said computer system is a wireless communicating device such as a cellphone.

64. The controller and resource management system of claim ~~63~~ [62] wherein said computer system is a portable computer such as a hand-held personal digital assistant (PDA) or laptop personal computer.

65. The controller and resource management system of claim ~~64~~ [62] wherein said computer system is a personal computer.

66. The controller and resource management system of claim ~~65~~ [62] wherein said computer system is a communications server.

67. A controller and resource management system as recited in claim ~~66~~ [62] wherein said controller and resource management system is therein implemented in hardware or firmware;

68. A controller and resource management system as recited in claim ~~67~~ [62] wherein said controller and resource management system is therein implemented in hardware or firmware, and wherein said controller and resource management system is electrically isolated from said plurality of computer system resources, including at least said processor;

69. In a personal computer system having a plurality of personal computer system resources, a controller and resource management system and method for controlling and managing said plurality of personal computer system resources, and handling a plurality of personal computer system events, said personal computer system comprising:

said controller and resource management system;

said plurality of personal computer system resources comprising at least:

one processor communicably coupled to said controller and resource management system;

a plurality of personal computer system memories communicably and operatively coupled to said controller and resource management system;

user interfaces including at least one keyboard, at least one mouse, at least one audio interface and at least one video interface;

at least one disc storage resource;

at least one bidirectional serial Input/Output (I/O) interface;

networking connections including local area networks (LANs) and wide area networks (WANs), having a plurality of integral layer-2 media access controllers (MACS);

wherein said plurality of personal computer system resources are operatively dependent on said controller and resource management system, and

wherein said controller and resource management system is operatively and functionally independent of said plurality of personal computer system resources, said controller and resource management system comprising at least:

an event handler for receiving said plurality of personal computer system events and further assigning a type identifier label and security level identifier label to said plurality of personal computer system events;

a system security function coupled to said event handler for notifying and alerting said plurality of personal computer system resources of said plurality of personal computer system events; said system security function operatively and functionally independent of said plurality of personal computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of personal computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of personal computer system resources;

a manager and scheduler function for managing and scheduling the plurality of processes to be performed by said plurality of personal computer system resources;

a priority handler function for evaluating and categorizing said plurality of processes to be performed by said plurality of personal computer system resources;

a configuration and device driver function for configuring and controlling said plurality of personal computer system resources;

a plurality of personal computer system bidirectional Input/Output (I/O) interfaces for coupling said controller and resource management system to said plurality of personal computer system resources;

a plurality of bidirectional memory buffers for providing buffing of data for said plurality of personal computer system bidirectional Input/Output (I/O) interfaces;

a memory controller hub for coupling said controller and resource management system to said plurality of personal computer system memories;

an Input/Output (I/O) controller hub for coupling said controller and resource management system to said plurality of personal computer system bidirectional Input/Output (I/O) interfaces;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of personal

computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of personal computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of personal computer system events and assigning a type identifier label to said plurality of personal computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of personal computer system events and assigning a security level identifier label to said plurality of personal computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of personal computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of personal computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of personal computer system resources of said plurality of personal computer system events, wherein said plurality of personal computer system events are received into said receiver and buffer, said plurality of personal computer system events are sent to said type identifier function for identifying and labeling

the type of said plurality of personal computer system events, said plurality of personal computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of personal computer system events, said plurality of personal computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of personal computer system events, said system security function storing said plurality of personal computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of personal computer system resources of said type and said security level assigned to said plurality of personal computer system events, and wherein said system security function storing said plurality of personal computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and resource management systems of said type and said security level assigned to said plurality of personal computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.

70. In a communications computer system having a plurality of communications computer system resources, a controller and resource management system and method for controlling and managing said plurality of communications computer system resources, and handling a plurality of communications computer system events, said communications computer system comprising:

said controller and resource management system;

said plurality of communications computer system resources
comprising at least:

one processor communicably coupled to said controller and resource
management system;

a plurality of communications computer system memories
communicably and operatively coupled to said controller and
resource management system;

a plurality of bidirectional communications Input/Output (I/O)
interfaces;

wherein said plurality of communications computer system resources
are operatively dependent on said controller and resource
management system, and

wherein said controller and resource management system is
operatively and functionally independent of said plurality of
communications computer system resources, said controller and
resource management system comprising at least:

an event handler for receiving said plurality of communications
computer system events and further assigning a type identifier
label and security level identifier label to said plurality of
communications computer system events;

a system security function coupled to said event handler for
notifying and alerting said plurality of communications computer
system resources of said plurality of communications computer

system events; said system security function operatively and functionally independent of said plurality of communications computer system resources;

a watchdog timer function for independently monitoring the health and operation of said controller and resource management system; said watchdog timer operatively and functionally independent of said plurality of communications computer system resources;

a plurality of bidirectional Input/Output (I/O) interfaces providing a means for direct coupling between a plurality of said controller and resource management systems, said direct coupling operatively and functionally independent of said plurality of communications computer system resources;

a manager and scheduler function for managing and scheduling the plurality of processes to be performed by said plurality of communications computer system resources;

a priority handler function for evaluating and categorizing said plurality of processes to be performed by said plurality of communications computer system resources;

a configuration and device driver function for configuring and controlling said plurality of communications computer system resources;

a plurality of communications computer system bidirectional Input/Output (I/O) interfaces for coupling said controller and resource management system to said plurality of communications computer system resources;

a plurality of integral layer-2 media access controllers (MACS);

a plurality of bidirectional memory buffers for providing buffering of data for said plurality of communications computer system bidirectional Input/Output (I/O) interfaces;

a memory controller hub for coupling said controller and resource management system to said plurality of communications computer system memories;

an Input/Output (I/O) controller hub for coupling said controller and resource management system to said plurality of communications computer system bidirectional Input/Output (I/O) interfaces;

wherein said event handler comprising at least:

an event handler for assigning a type identifier label and security level identifier label to said plurality of communications computer system events, said event handler comprising;

a receiver and buffer for receiving said plurality of communications computer system events;

a type identifier function coupled to said receiver and buffer for identifying the type of said plurality of communications computer system events and assigning a type identifier label to said plurality of communications computer system events;

a security identifier function coupled to said type identifier function for identifying the security level of said plurality of

communications computer system events and assigning a security level identifier label to said plurality of communications computer system events; and

a routing function coupled to said security identifier function and further coupled to said system security function for routing said plurality of communications computer system events with their assigned said type identifier label and said security level identifier label to said system security function based on said event handlers determination of said type identifier and said security level identifier for received said plurality of communications computer system events;

wherein said method comprising: a method for receiving, identifying, routing, storing, notifying and alerting said plurality of communications computer system resources of said plurality of communications computer system events, wherein said plurality of communications computer system events are received into said receiver and buffer, said plurality of communications computer system events are sent to said type identifier function for identifying and labeling the type of said plurality of communications computer system events, said plurality of communications computer system events with said type identifier label are then sent to said security identifier function for identifying and labeling the security level of said plurality of communications computer system events, said plurality of communications computer system events with said type identifier label and said security level identifier label are routed by said routing function to said system security function based on said type identifier label and said security level identifier label assigned for said plurality of communications computer system events, said system security function storing said plurality of

communications computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of communications computer system resources of said type and said security level assigned to said plurality of communications computer system events, and wherein said system security function storing said plurality of communications computer system events with said type identifier label and said security level identifier label and notifying and alerting said plurality of controller and resource management systems of said type and said security level assigned to said plurality of communications computer system events, said system security function notifying and alerting said plurality of controller and resource management systems using said plurality of bidirectional Input/Output (I/O) interfaces.